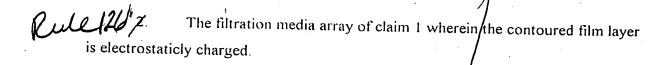
30

10



- 2. 3. The filtration media array of claim 2 wherein the filtration media array comprises at least two flow channel layers.
 - The filtration media array of claim 2 wherein the second layer is a cap layer.
 - The filtration media array of claim 4 wherein the cap layer is a planar film layer forming the flow channels with the contoured film layer and which flow channels extend across the entire contoured film layer forming the fluid pathways.
 - The filtration media array of claim 5 wherein the cap layer is in engagement with all the peaks or ridges on one face of the contoured film layer.
 - The filtration media array of claim 6 wherein the cap layer is heat bonded to the peaks or ridges of the contoured film layer.
 - The filtration media array of claim 6 wherein the cap layer is adhesively bonded to the peaks or ridges of the contoured film layer.
 - The filtration media array of claim 2 wherein the second film layer is a contoured film layer.
- 25 9, 10. The filtration media array of claim 9 wherein the contoured film layers are attached to at least one cap layer.
 - The filtration media array of claim 10 wherein the cap layer is a stabilization layer comprising continuous filaments or a strengthened nonwoven.

25

10

- The filtration media array of claim 2 wherein the shape of the flow channels of a flow channel layer are substantially identical.
- 12. 13. The filtration media array of claim 3 wherein the flow channels of adjacent flow channel layers are substantially aligned.
- 13. 14. The filtration media array of claim 3 wherein the adjacent layers forming the filtration media array are melt adhered each to the other.
- 14. 18. The filtration media array of claim 3 wherein the flow channel layers are formed by one face of a contoured film layer and a cap film layer in contact with the peaks or ridges of that face of the contoured film layer.
 - The filtration media array of claim 15 wherein each contoured film layer is bonded to at least one planar cap film layer.
- The filtration media array of claim 3 wherein at least one functional layer is provided in the filtration media array.
- 77. 18. The filtration media array of claim 17 wherein the functional layer is a cap layer having a surface treatment.
- The filtration media array of claim 18 wherein the functional layer comprises a sorbent filtration media.
- 19, 26. The filtration media array of claim 2 wherein the contoured film layer has high aspect ratio structures on both faces.

30

10

- The filtration media array of claim 18 wherein the functional layer are pairs of conductive layers associated with adjacent nonconductive layers which conductive layers are connected to a voltage source to create an active electric field across the flow channel layers.
- 21. 22. The filtration media array of claim 1 wherein the high aspect ratio structures have a ratio of height to smallest diameter or width of greater than 0.1 and a height of at least 20 microns.
- The filtration media array of claim 2 wherein the high aspect ratio structures have a ratio of height to smallest diameter or width of greater than 0.5 and a height of at least 50 microns.
- 23.24. The filtration media array of claim 2 wherein the high aspect ratio structures are in the shape of upstanding projections, ridges, or combinations thereof.
- 24. 28. The filtration media array of claim 23 wherein the structured film surface area is at least 50 percent higher than a corresponding planar film.
- 25, 26. The filtration media array of claim 25 wherein the high aspect ratio structures are less than 50 percent of the height of the flow channels
- The filtration media array of claim 23 wherein the flow channels have structured surface film layers forming from 10 to 100 percent of their surface area.
- The filtration media array of claim 2 wherein the layers forming the flow channels have a thickness of less than 200 microns
 - The filtration phedia array of claim 2 wherein the flow channels have an average cross sectional area/along their length of at least 1 mm².

29. 36. The filtration media array of claim 29 wherein the flow channels have an average cross sectional area along their length of less than 1cm².

The filtration media array of claim 30 wherein the minimum cross sectional area of a flow channel is at least 0.2 mm².

The filtration media array of claim 4 wherein the cap layer is a planar film layer forming the flow channels with the contoured film layer and which flow channels of adjacent flow channel layers extend at angles with resect to each other.

10

5

SUB B 32.38

A method of forming a filtration media array comprising the steps of:

- (a) forming a contoured film layer;
- (b) joining the contoured film layer to a second layer at at least one face of the contoured film layer so as to stabilize the contoured film layer and form flow channels;
- (c) electrostaticly charging the flow channel layer assembly of the contoured film layer and the second layer.

The method of forming a filtration media array of claim 33 further comprising layering the flow/channel layer assembly so as to create a filtration media array having multiple flow channel layers.

25 2 Sub The method of forming a filtration media array of claim 34 further comprising joining the adjacent flow channel layers by partially melting at least one face of the multilayer flow channel assembly.

35,38

A method of forming a filtration media array comprising the steps of:

- (a) forming a contoured film layer;
- (b) joining the contoured film layer to a second layer at at least one face of the contoured film layer so as to stabilize the contoured film layer and form a series of adjacent flow channels;
- (c) layering the flow channel layer assembly so as to create a filtration media array having multiple flow channel layers forming fluid pathways through the filtration media array;
- (d) slicing the filtration media array with a hot wire so as to fuse the adjacent layers forming the filtration media array.

Sub Comprising s

10

The method of forming a filtration media array of claim 36 further comprising separating a portion of the filtration media array sliced by the hot wire.